



32688sequencelisting.txt

SEQUENCE LISTING

<110> Geiser, Martin
Geisse, Sabine
Ostemeier, Christian
Ramage, Paul
Raulf, Friedrich
Zenke, Gerhard

<120> Three-Dimensional Structure of the
Catalytic Domain of ZAP-70 Protein Tyrosine Kinase, Methods
and Use Thereof

<130> 4-32688

<140> US 10/528,709

<141> 2005-03-22

<150> PCT/EP03/10686

<151> 2003-09-25

<150> US 60/413,704

<151> 2002-09-26

<160> 6

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 619

<212> PRT

<213> Homo sapiens

<400> 1

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Leu Phe Leu Leu Arg Gln Cys Leu Arg Ser Leu Gly Gly Tyr Val Leu
 35          40          45
Ser Leu Val His Asp Val Arg Phe His His Phe Pro Ile Glu Arg Gln
 50          55          60
Leu Asn Gly Thr Tyr Ala Ile Ala Gly Gly Lys Ala His Cys Gly Pro
 65          70          75          80
Ala Glu Leu Cys Glu Phe Tyr Ser Arg Asp Pro Asp Gly Leu Pro Cys
 85          90          95
Asn Leu Arg Lys Pro Cys Asn Arg Pro Ser Gly Leu Glu Pro Gln Pro
100          105          110
Gly Val Phe Asp Cys Leu Arg Asp Ala Met Val Arg Asp Tyr Val Arg
115          120          125
Gln Thr Trp Lys Leu Glu Gly Glu Ala Leu Glu Gln Ala Ile Ile Ser
130          135          140
Gln Ala Pro Gln Val Glu Lys Leu Ile Ala Thr Thr Ala His Glu Arg
145          150          155          160
Met Pro Trp Tyr His Ser Ser Leu Thr Arg Glu Glu Ala Glu Arg Lys
165          170          175
Leu Tyr Ser Gly Ala Gln Thr Asp Gly Lys Phe Leu Leu Arg Pro Arg
180          185          190
Lys Glu Gln Gly Thr Tyr Ala Leu Ser Leu Ile Tyr Gly Lys Thr Val
195          200          205
Tyr His Tyr Leu Ile Ser Gln Asp Lys Ala Gly Lys Tyr Cys Ile Pro
210          215          220
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| Leu | Lys | Ala | Asp | Gly | Leu | Ile | Tyr | Cys | Leu | Lys | Glu | Ala | Cys | Pro | Asn |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Ser | Ala | Ser | Asn | Ala | Ser | Gly | Ala | Ala | Ala | Pro | Thr | Leu | Pro | Ala |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| His | Pro | Ser | Thr | Leu | Thr | His | Pro | Gln | Arg | Arg | Ile | Asp | Thr | Leu | Asn |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Asp | Gly | Tyr | Thr | Pro | Glu | Pro | Ala | Arg | Ile | Thr | Ser | Pro | Asp | Lys |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Arg | Pro | Met | Pro | Met | Asp | Thr | Ser | Val | Tyr | Glu | Ser | Pro | Tyr | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Pro | Glu | Glu | Leu | Lys | Asp | Lys | Lys | Leu | Phe | Leu | Lys | Arg | Asp | Asn |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Leu | Ile | Ala | Asp | Ile | Glu | Leu | Gly | Cys | Gly | Asn | Phe | Gly | Ser | Val |
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| Arg | Gln | Gly | Val | Tyr | Arg | Met | Arg | Lys | Lys | Gln | Ile | Asp | Val | Ala | Ile |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Val | Leu | Lys | Gln | Gly | Thr | Glu | Lys | Ala | Asp | Thr | Glu | Glu | Met | Met |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Arg | Glu | Ala | Gln | Ile | Met | His | Gln | Leu | Asp | Asn | Pro | Tyr | Ile | Val | Arg |
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| Leu | Ile | Gly | Val | Cys | Gln | Ala | Glu | Ala | Leu | Met | Leu | Val | Met | Glu | Met |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Gly | Gly | Gly | Pro | Leu | His | Lys | Phe | Leu | Val | Gly | Lys | Arg | Glu | Glu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Pro | Val | Ser | Asn | Val | Ala | Glu | Leu | Leu | His | Gln | Val | Ser | Met | Gly |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Met | Lys | Tyr | Leu | Glu | Glu | Lys | Asn | Phe | Val | His | Arg | Asp | Leu | Ala | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Arg | Asn | Val | Leu | Leu | Val | Asn | Arg | His | Tyr | Ala | Lys | Ile | Ser | Asp | Phe |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gly | Leu | Ser | Lys | Ala | Leu | Gly | Ala | Asp | Asp | Ser | Tyr | Tyr | Thr | Ala | Arg |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ser | Ala | Gly | Lys | Trp | Pro | Leu | Lys | Trp | Tyr | Ala | Pro | Glu | Cys | Ile | Asn |
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| Phe | Arg | Lys | Phe | Ser | Ser | Arg | Ser | Asp | Val | Trp | Ser | Tyr | Gly | Val | Thr |
| | | 515 | | | | | 520 | | | | | 525 | | | |
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| Gly | Pro | Glu | Val | Met | Ala | Phe | Ile | Glu | Gln | Gly | Lys | Arg | Met | Glu | Cys |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Pro | Pro | Glu | Cys | Pro | Pro | Glu | Leu | Tyr | Ala | Leu | Met | Ser | Asp | Cys | Trp |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Ile | Tyr | Lys | Trp | Glu | Asp | Arg | Pro | Asp | Phe | Leu | Thr | Val | Glu | Gln | Arg |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Met | Arg | Ala | Cys | Tyr | Tyr | Ser | Leu | Ala | Ser | Lys | Val | Glu | Gly | Pro | Pro |
| | | 595 | | | | | 600 | | | | | 605 | | | |
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<210> 2
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 <212> PRT
 <213> Homo sapiens

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 Leu Phe Leu Lys Arg Asp Asn Leu Leu Ile Ala Asp Ile Glu Leu Gly

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Cys Gly Asn Phe Gly Ser Val Arg Gln Gly Val Tyr Arg Met Arg Lys
  50      55      60
Lys Gln Ile Asp Val Ala Ile Lys Val Leu Lys Gln Gly Thr Glu Lys
  65      70      75      80
Ala Asp Thr Glu Glu Met Met Arg Glu Ala Gln Ile Met His Gln Leu
      85      90      95
Asp Asn Pro Tyr Ile Val Arg Leu Ile Gly Val Cys Gln Ala Glu Ala
  100      105      110
Leu Met Leu Val Met Glu Met Ala Gly Gly Gly Pro Leu His Lys Phe
  115      120      125
Leu Val Gly Lys Arg Glu Glu Ile Pro Val Ser Asn Val Ala Glu Leu
  130      135      140
Leu His Gln Val Ser Met Gly Met Lys Tyr Leu Glu Glu Lys Asn Phe
  145      150      155      160
Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Leu Val Asn Arg His
      165      170      175
Tyr Ala Lys Ile Ser Asp Phe Gly Leu Ser Lys Ala Leu Gly Ala Asp
  180      185      190
Asp Ser Tyr Tyr Thr Ala Arg Ser Ala Gly Lys Trp Pro Leu Lys Trp
  195      200      205
Tyr Ala Pro Glu Cys Ile Asn Phe Arg Lys Phe Ser Ser Arg Ser Asp
  210      215      220
Val Trp Ser Tyr Gly Val Thr Met Trp Glu Ala Leu Ser Tyr Gly Gln
  225      230      235      240
Lys Pro Tyr Lys Lys Met Lys Gly Pro Glu Val Met Ala Phe Ile Glu
      245      250      255
Gln Gly Lys Arg Met Glu Cys Pro Pro Glu Cys Pro Pro Glu Leu Tyr
  260      265      270
Ala Leu Met Ser Asp Cys Trp Ile Tyr Lys Trp Glu Asp Arg Pro Asp
  275      280      285
Phe Leu Thr Val Glu Gln Arg Met Arg Ala Cys Tyr Tyr Ser Leu Ala
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Cys Ala

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